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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/420,275	10/18/1999	MIGUEL DAJER	9-3-29	2584

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EXAMINER

RAMOS FELICIANO, ELISEO

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 10/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.
09/420,275

Applicant(s)
DAJER et al.

Examiner
ELISEO RAMOS-FELICIANO

Art Unit
2682



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Oct 18, 1999 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5 6) ☐ Other:

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DETAILED ACTION

Information Disclosure Statement

1. The references listed in the Information Disclosure Statement filed on August 13, 2002 have been considered by the examiner (see attached PTO-1449 form).

Drawings & Specification

2. The drawings are objected to because element 232 in Figure 6A needs an appropriate label (e.g. "Radio Board"). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: CUB1, CUB2, CUB M. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
4. The disclosure is objected to because of the following informalities: page 8, lines 3-4 contain "multiple channel unit boards 200-1, 200-2, ..., 200-M". It should read --multiple channel unit boards 200-1 (CUB 1), 200-2 (CUB 2), ..., 200-M (CUB M)-- to provide matching reference signs to Figure 6A. Appropriate correction is required.

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Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. **Claims 1-5, 7-12, 14-15, and 17-18** are rejected under 35 U.S.C. 102(e) as being anticipated by Andersson et al. (US Patent Number 6,400,966).

Regarding **claims 1 and 17**, Andersson et al. discloses a base station (e.g. 200) for use in a wireless communication system; see Figures 2 and 3. The base station includes a plurality of channel unit boards (e.g. BBTX-1, BBTX-2, ... BBTX-N) each including a plurality of channel elements as depicted in Figures 9-12. A given channel unit board (e.g. BBTX-1) includes a multiplexer (MUX) which is operative to implement multi-carrier / multi-selector channel pooling by assigning a given one of the channel elements (e.g. RESOURCE, etc.) of that board to any one of the multiple carriers (e.g. Carrier 1, Carrier 2, ... Carrier N1, etc.) of the system, as depicted in

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Figures 4B, 7B and 9A. See the abstract, column 5, lines 1-12 & 54-63, column 6, lines 34-51, column 8, line 6 to column 10, line 22.

With respect to **claims 8, 15, and 18**, same explanation shown above for *claim 1* is applied. Andersson et al. discloses everything claimed. In addition, different channel elements of a channel unit board are “controllably assigned” to different carriers of the system; see column 10, lines 13-22 and Figures 4B, 7B, 9A, etc.

Regarding **claims 2-5 and 7**, Andersson et al. discloses everything claimed as applied above (see *claim 1*). In addition, the channel unit boards generate a set of digital in-phase (I) and quadrature (Q) signals for each of the plurality of carriers; Figure 4B & 9A. The multiplexer (MUX) is operative to connect a given one of the channel elements to an I and Q signal bus; Figure 9A. The I and Q signals from different channel unit boards are combined using a “Combiner”; Figure 11.

N channel elements can be assigned to N carriers in N sectors; column 10, lines 13-22 and the Figures. The disclosed wireless communication system is a CDMA system operating in either IS-95-A, B or C, with or without OTD, MC CDMA-2000 (W-CDMA), or UMTS; see column 1, line 58 to column 2, line 25, and column 11, lines 7-12.

With respect to **claims 9-12 and 14**, the same explanation shown above for *claims 2-5 and 7* is applied. Andersson et al. discloses everything claimed.

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Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 6, 13, 16, and 19-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson et al. (US Patent Number 6,400,966) in view of the knowledge generally available to one of ordinary skill in the art.

Regarding **claims 6 and 13**, Andersson et al. discloses everything claimed as applied above (see *claims 1 and 8*). However, Andersson et al. fails to specifically disclose that the assignment step is performed by a control computer.

It should be noted that the assignment step is inherently performed by some kind of “controller”. On the other hand, computers are conventionally used as controllers for the known advantage of faster and more accurate performance.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to perform the assignment step by a control computer because of the advantage of faster and more accurate performance.

With respect to **claim 16**, it is rejected for the same reasons explained for *claim 1 and 6*.

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As to **claims 19-23**, they are an obvious variation form of *claims 1-18*. Therefore, they are rejected for the same reasons shown above. For clarification: the above explained multiplexer (MUX) reads as the claimed “signal combiner element” and is “controllable” by the explained “control computer”. Figure 9A exhibits a set of BBTXs each including one MUX. These MUXs in combination read as the claimed “set of controllable signal combiner element”. For example, the adder (Σ) depicted in Figure 12 reads as the claimed “multi-carrier combiner.

Claims 24-27 define a receiver sub-unit of the claimed base station, while *claims 19-23* define a transmitter sub-unit of the claimed base station. *Claims 24-27* are at least obvious in view of *claims 19-23* because every transmission needs and implies a reception. Nevertheless, Andersson et al. discloses both the transmitter (Figures 9-12) and the receiver (Figures 4-8) sub-units of the base station (Figure 3). The same explanation found above is applied herein. The demultiplexer (DEMUX) shown in Figures 4-8 reads as the claimed “controllable selector”.

Citation of Pertinent Prior Art

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Dean et al. (U.S. Patent Number 5,867,763), see Figures 8, 10, 12;

Keskitalo et al. (U.S. Patent Number 5,893,033), see Figures 11-13;

Rowland (U.S. Patent Number 6,006,111), see Figure 4;

Roy, III et al. (U.S. Patent Number 5,642,353), see Figure 4.

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Conclusion

10. Any response to this Office action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314

for formal communications intended for entry, informal communications or draft communications; in the case of informal or draft communications, please label "PROPOSED" or "DRAFT".

Hand-delivered responses should be brought to

Crystal Park II
2121 Crystal Drive
Arlington, VA
Sixth Floor (Receptionist).

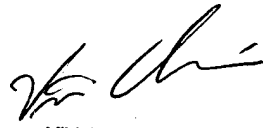
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eliseo Ramos-Feliciano whose telephone number is (703) 305-0078. The examiner can normally be reached on Monday through Thursday (first week of bi-week) and Monday through Friday (second week of bi-week) from 8:30 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin, can be reached on (703) 308-6739. The fax phone number for this Group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700, or call Group customer service at (703) 306-0377.

**ELISEO RAMOS-FELICIANO
PATENT EXAMINER**

ERF/erf
September 27, 2002.


**VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**

9/30/02